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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,856	03/25/2005	Noriko Watanabe	70404.54/ok	5341
54072 7590 06/22/2007 SHARP KABUSHIKI KAISHA C/O KEATING & BENNETT, LLP 8180 GREENSBORO DRIVE SUITE 850 MCLEAN, VA 22102			EXAMINER VERAA, CHRISTOPHER	
			ART UNIT 3611	PAPER NUMBER
			NOTIFICATION DATE 06/22/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JKEATING@KBIPLAW.COM  
uspto@kbiplaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/529,856	<b>Applicant(s)</b> WATANABE, NORIKO	
	<b>Examiner</b> Christopher E. Veraa	<b>Art Unit</b> 3611	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claim 1-3, 6, 8, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koike (US-5406399) in view of Takazawa et al (US-6942624). Koike teaches a display for displaying dynamic information with a display panel with a substrate 1 and 2, and a frame with a supporting portion 18. The supporting portion has a flat portion to which the substrate is fixed. Koike lacks a curved portion. Takazawa shows in figure 3, a substrate 2 that is fixed to a supporting portion with flat and curved portions. Takazawa teaches "Accordingly the upper and lower edges 43 and 44 that composed the slit 20 both have a large radius of curvature, so that even if the sensor sheet 2 that is a firm, thin plastic sheet bends around these edges 43 and 44, the sensor sheet 2 bends in keeping with or about the edges 43 and 44, thereby preventing the sensor sheet 2 from folding over or snapping." (Takazawa, column 8, lines 7-14). It would be obvious to one of ordinary skill in the art to construct an LCD frame with a curved portion so that the screen is not flexed over a sharp corner. Such a frame would inherently leave a gap between the curved portion and the substrate when no external force is applied.

As to claim 2, the curved portion 44 taught by Takazawa further includes a second curved portion 43 that faces the first curved portion. It would be obvious

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to one of ordinary skill in the art to include a second curved portion so that the substrate is equally protected if flexed in either direction.

As to claims 3 and 8, Koike teaches fixing the substrate to the flat portion with an adhesive layer 20.

As to claims 6 and 11, known materials that would be obvious to use when constructing the device include plastic, which is known to be flexible. It would therefore be obvious to one of ordinary skill in the art to construct the supporting portion with an elastic material.

3. Claims 4, 5, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koike (US-5406399) in view of Takazawa et al (US-6942624) and further in view of Truc (US-6502341). Koike lacks a reinforcing plate. Truc teaches a film mounting frame with a reinforcing plate 14. It would be obvious to one of ordinary skill in the art to modify Koike to include a reinforcing plate to "rigidify and strengthen the structural integrity" of the frame making the frame "less likely to be accidentally bent, torn, or otherwise damaged." Truc also teaches that the reinforcing plate "prevents corresponding warpage" that may occur in a plastic film. One of ordinary skill would understand that these principles are readily applicable to the problem of mounting an LCD display where relatively thin and/or fragile substrates are mounted within a frame. (Truc, column 4, lines 47-57) As to claims 5 and 10, it would be obvious to one of ordinary skill in the art to fix the reinforcing plate in place using an adhesive layer. Truc teaches using adhesives in column 6, the paragraph beginning line 12.

4. Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koike (US-5406399) in view of Takazawa et al (US-6942624) and further in view of Kageyama et al (US-2001/0002858).

Koike teaches an LCD using a glass substrate and not a plastic substrate.

Kageyama et al teaches a method for making an LCD display using a plastic substrate, which is more flexible. It is well known in the art that plastic can be used as the transparent substrate in an LCD display, and would be obvious to one of ordinary skill in the art to modify Koike to use one.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E. Veraa whose telephone number is 571-272-2329. The examiner can normally be reached on Monday through Friday, 7:00 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on 571-272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
LESLEY D. MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600